

ABSTRACT

A color imaging system is provided that captures an image in a color format that comprises a plurality of chromatic intensity values, detects whether the image is substantially achromatic (i.e., gray-scale or black and white), and renders the chromatic intensity values as grayscale luminance or black and white values. A color imager comprising an array of color photocells captures the image. An image processor is provided with a white balance circuit, a gray-scale image detection circuit, and an image conversion circuit. The white balance circuit adjusts the chromatic values to correct for non-ideal sources of white light illumination. The gray-scale image detection circuit detects whether the image is substantially achromatic. The image conversion circuit renders the image as a gray-scale or black-and-white image, as the circumstances dictate.